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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/721,602

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Pawan Goyal

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12/08/2008

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EXAMINER

DAYE, CHELCIE L

ART UNIT

PAPER NUMBER

2161

MAIL DATE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/721,602	GOYAL, PAWAN	
	<b>Examiner</b>	<b>Art Unit</b>	
	CHELCIE DAYE	2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20,22-24 and 26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20,22-24 and 26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. This action is issued in response to applicant's amendment filed September 17, 2008.
2. Claims 1-20,22-24,and 26 are presented. No claims added and claims 21 and 25 remain cancelled.
3. Claims 1-20,22-24,and 26 are pending.
4. Applicant's arguments filed September 17, 2008, have been fully considered but they are not persuasive.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 1,4-7,10,13-15,18-20,24, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yanai (US Patent No. 6,502,205) filed November 10, 2000, in view of Kawamura (US Patent Application No. 20040193658) filed August 29, 2003.**

Regarding Claims 1, 7, 10, 15, and 20, Yanai discloses a method for asynchronously remotely copying database content changes from a primary site to a remote site, the method comprising:

associating a sequential identification with each respective log record write and each corresponding data record write received at the primary site, each data record write containing modifications to a page of the database and each log record write containing information describing modifications to the page of the database for a corresponding data record write (column 32, lines 34-58 and column 33, lines 7-10, Yanai). However, Yanai is silent with respect to asynchronously remotely copying each respective log record write from the primary site to the remote site; receiving an acknowledgement at the primary site, the acknowledgement corresponding to a log record write that has been completed at the remote site; and asynchronously remotely copying each data record write having a sequential identification that is prior to or equal to the sequential identification of the log record write corresponding to the received acknowledgement. On the other hand, Kawamura discloses asynchronously remotely copying each respective log record write from the primary site to the remote site ([0016] and [0054], lines 13-18, Kawamura); receiving an acknowledgement at the primary site, the acknowledgement corresponding to a log record write that has been completed at the remote site ([0073], Kawamura); and asynchronously remotely copying each data record write having a sequential identification that is only prior to or equal to the sequential identification of the log

record write corresponding to the received acknowledgement ([0075], lines 1-3 and [0076-0077], Kawamura). Yanai and Kawamura are analogous art because they are from the same field of endeavor of asynchronous remote copying. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Kawamura's teachings into the Yanai system. A skilled artisan would have been motivated to combine in order to provide a system in which modification contents of information completed within a primary site are lost in a remote site is lower in response of a failure or predetermined condition. Thus, allowing for a more efficient and non-disruptive asynchronous copy system.

Regarding Claims 4, 13, 18, and 24, the combination of Yanai in view of Kawamura, disclose the method wherein a log record write is asynchronously remotely copied from the primary site to the remote site before a data record write is asynchronously remotely copied from the primary site to the remote site (column 32, lines 34-38, Yanai).

Regarding Claims 5, 14, 19, and 26, the combination of Yanai in view of Kawamura, disclose the method wherein each log record write is a log block ([0050], lines 1-6, Kawamura) and each data record write is a data block write ([0048], lines 5-7, Kawamura).

Regarding Claim 6, the combination of Yanai in view of Kawamura, disclose the method further comprising:

- asynchronously receiving a log record write at the remote site ([0016] and [0054], lines 13-18, Kawamura);
- storing the received log record write at the remote site ([0062], Kawamura);
- sending an acknowledgement from the remote site to the primary site when the received log record write is complete ([0073], Kawamura);
- asynchronously receiving a data record write at the remote site from the primary site ([0075], lines 1-3 and [0076-0077], Kawamura); and
- storing the received data record write ([0062], Kawamura).

**7. Claims 2-3,8-9,11-12,16-17, and 22-23, are rejected under 35 U.S.C. 103(a) as being unpatentable over Yanai (US Patent No. 6,502,205) filed November 10, 2000, in view of Kawamura (US Patent Application No. 20040193658) filed August 29, 2003, and further in view of Shomler (US Patent No. 5,623,599) filed July 29, 1994.**

Regarding Claims 2, 8, 11, 16, and 22, the combination of Yanai in view of Kawamura disclose all of the claimed subject matter as stated above. However, while the combination of Yanai in view of Kawamura, teach a sequential identification, they are not as detailed with the being a monotonically increasing

identification number. On the other hand, Shomler discloses a monotonically increasing identification number (column 11, lines 38-46, Shomler). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Shomler's teachings into the Yanai and Kawamura system. A skilled artisan would have been motivated to combine in order to allow for the identification to be more precise and consistent with the information being produced by the system.

Regarding Claims 3, 9, 12, 17, and 23, the combination of Yanai in view of Kawamura, and further in view of Shomler, disclose the method wherein the sequential identification is a monotonically increasing time-stamp identification (column 7, lines 43-60, Shomler).

### ***Response to Arguments***

**Applicant argues, Kawamura does not disclose “asynchronously remotely copying each respective log record write from the primary site to the remote site”.**

Examiner respectfully disagrees. The applicant begins by stating that the relied upon paragraph [0016-0017] of Kawamura teaches away from the concept of a log block that is asynchronously transferred to a remote site because of "the drawback that sometimes the modification contents of the transactions are sometimes lost in the

remote site". The examiner would like to point out the fact that this is a combination of references and paragraphs [0016-0017] are relied upon for merely showing this is a known method of transferring log record writes from a primary site to a remote site asynchronously. Just the mention of there being a slight degradation to the site does not automatically mean that the reference is teaching away from facts, instead the reference is simply stating a possible outcome. Therefore, the applicant's argument that the reference teaches away from the concept is invalid because the rejection is not anticipatory but instead obvious. Even further, Kawamura teaches "*the received write request is a write request of the log block or status information, then the primary remote copy processing section temporarily stores the write request and conducts asynchronous write processing into the secondary disk subsystem*" (see [0054]), wherein the applicant argues that the log block indicated item **242a**, and 242a corresponds to a DB block. The examiner does not disagree that item 242a corresponds to a DB block, however, there is nothing that does not show that the reference number beside the phrase "log block" is incorrect and it was actually suppose to indicate item 262a. Therefore, the examiner fully believes that paragraph [0054] of Kawamura teaches the claimed log record write being written asynchronously from a primary to a remote site. Lastly, Kawamura further teaches that "*it can be determined whether each of the log block, DB block, and status information is written into the secondary disk subsystem synchronously or asynchronously*" (see [0082], lines 1-6). The preceding excerpt clearly discloses that a log block can be written from a primary site to a remote site asynchronously.



### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***Points of Contact***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHELCIE DAYE whose telephone number is (571)272-3891. The examiner can normally be reached on M-F, 7:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu Mofiz can be reached on 571-272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2161

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chelcie Daye  
Patent Examiner  
Technology Center 2100  
December 4, 2008

/Apu M Mofiz/  
Supervisory Patent Examiner, Art Unit 2161